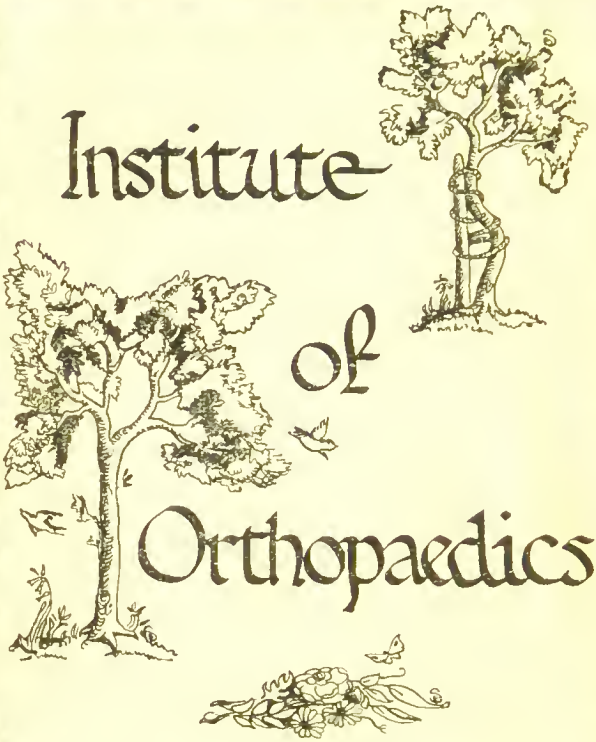
DURLACHER ON THE FEET.

Institute of Orthopaedics



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A CONCISE TREATISE

ON

CORNS, BUNIONS,

And the Disorders of Nails,

ETC.

A

CONCISE TREATISE

ON

CORNS, BUNIONS,

AND THE

DISORDERS OF NAILS.

WITH

ADVICE FOR THE GENERAL MANAGEMENT OF THE FEET.

BY

LEWIS DURLACHER,

SURGEON-CHIROPODIST TO HER MAJESTY THE QUEEN AND THE ROYAL FAMILY.

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CONTENTS.

PAGE

ADVERTISEMENT vii

PREFACE ix

INTRODUCTION 13

CHAPTER I.—CORNS—THEIR CAUSES AND GROWTH—HARD CORNS—CALLOSITIES—SOFT CORNS—NEURO-VASCULAR CORN—VASCULAR EXCRESCENCE—WARTS . . 25

CHAPTER II.—BUNIONS AND CHILBLAINS . 63

CHAPTER III.—THE NAILS AND THEIR DISEASES 78

CHAPTER IV.—ON THE MANAGEMENT OF THE FEET 102

ADVERTISEMENT.

HAVING several years ago published a "Treatise on Corns, Bunions, the Diseases of Nails, and the General Management of the Feet," which met with a most favourable reception from the medical press and the profession generally, I was induced to prepare a second and popular edition of my larger work; the present edition is not, however, a mere reprint of the second, but has been

considerably altered in its form and arrangement. I have endeavoured, in making these alterations, to simplify the subject as much as possible, but at the same time to give such information as it is desirable the public should possess on the subject.

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PREFACE.

AMONGST the endless aches and pains to which the human frame is liable, there are few ailments entailing annoyances so great, or sufferings more acute, than those which attack the feet. Corns are the universal torment of mankind; and although in general held of no moment, and indeed exciting little or no sympathy, still they do wring a confession of pain by many an outward indication, from those who are ashamed to acknowledge it in words.

"Long corns and short shoes
To the enemies of Great Britain!"

was a standing toast during the Penin-

sular war, and the author must undoubtedly have been a sad martyr, to wish no greater punishment to our enemies than corns.

It is, however, seriously to be regretted, that corns and other disorders of the feet, to which the majority of people are subject, should have been considered of so little interest by the public as scarcely to have been noticed in a proper manner even by those they continually torment; yet it is well known that these local complaints, when neglected, injure the general system by preventing the body from obtaining that natural and indispensable exercise, so conducive to health. No better evidence can be afforded of the absence of proper attention to this subject, than the notorious fact that persons will cut their corns with razors, knives and other unwieldy instruments, as if their toes were not of any importance to the

general system. Others, again, are ready to trust themselves in the hands of any person who plausibly promises a radical cure, without thinking for one moment how soon an accident may deprive them of the power of taking exercise, and without regarding the serious results which may follow. I have seen cases where the patients would have consulted half the surgeons in London for complaints of one-tenth the consequence, if situated in any other part of the body.

I have devoted many years' practical experience, and continue to devote my attention to the disorders of the feet, more particularly to corns; but although I have been perfectly successful in curing many hundreds of cases, yet I have not been able to discover any chemical or remedial agent that will enable me positively to promise a radical cure. I therefore consider it

my duty to caution the public against the system that is now, and has been for some time past, carried on by persons calling themselves chiropodists, of extracting corns by the roots. These persons pretend to take out a number of spiculæ, very much resembling small pieces of horn or fish-bone, for which a charge is made for each (so called) root; although it is a positive fact, from the structure of the skin, that such an assertion must be false, and the whole proceeding a species of jugglery and fraud.

INTRODUCTION.

THE disorders of which this work chiefly treats are those of the feet, arising principally from compression or friction, and most generally affecting the outer or scarf skin, which, in a healthy state, is imperceptibly wearing off, either as fine powder, or in minute scales, and is continually being regenerated. It is, therefore, necessary to mention some of the various opinions that have been brought forward as to the structure of the skin, in order in some degree to explain the formation of corns, &c. The recent investigations of German anatomists and physiologists have given

rise to new views respecting the formation of the skin, and have shown that it is produced by what is called "cell-formation." I do not consider it necessary to do more than allude to their researches, contenting myself with observing, that some of their discoveries had been anticipated by the Dutch anatomist, Leuwenhoek, and by our own countryman, Dr. N. Grew.

The papers in which these writers promulgated their views were published in the "Philosophical Transactions," some time in the seventeenth century. They are remarkable for containing some very curious statements respecting the structure and formation of the skin, founded on investigations under the microscope. Leuwenhoek, whose letter is dated the 17th Sept., 1683, describes the cuticle as composed of round scales overlapping each other like those of a fish, and so minute that

a single grain of sand would cover from two hundred to two hundred and fifty. They are very thin, he says, their breadth being about twenty-five times greater than their thickness. He considers that there are not any pores in the skin ; but that the perspiration oozes from between the scales, though they adhere never so closely together. He reckons that there are one hundred openings in the space of a third part of a scale, and that these are so small that a grain of sand will cover two hundred of them. It will follow, then, that the body may exhale out of twenty thousand openings in a space not larger than may be covered by a grain of sand. The scales, unlike those of fishes, are not permanent, but come away in clusters ; if, however, they are separated before they are loose, blood either follows, or at least there remains a red spot. Those on the hard and callous parts,

of the hands and feet, are of the same nature and shape as those on the body; but the latter are clear and transparent, while the others are so full of lines, and so thickly beset with globules, that they seem to be composed of nothing else. These scales are more adhesive than those which are situated elsewhere, and by this means, especially when the hands are employed in hard labour, the skin, though it be nothing but scales, comes to be of an extraordinary thickness, the scales being then more packed and clotted together.

Dr. Grew principally contends for the existence of pores in the hands and feet, which, he says, are to be found under the microscope on the top of numerous ridges, and not buried in the furrows, and of a sufficient size that their structure may not be injured by compression.

Winslow's description of the skin is

equally curious. He says the skin is a very extended tissue, composed of many tendinous, nervous, and vascular fibres, its formation being as wonderful as it is difficult to develope, it being in every sense like the texture of a hat. Several other quaint and singular theories were put forth about this period, by English and continental writers, respecting the origin and formation of the skin, some of them deriving it directly from the blood, after the evaporation of the serum, and others, again, considering it to be essentially produced by the effusion of a gelatinous fluid from the circulating medium. These theories, while they may be regarded as amusing, are not altogether void of interest. In this state our knowledge as to the anatomy of the skin continued up to the end of the eighteenth century. A new impetus has, however, of late been given to investigations respecting it, by

the discoveries made with the microscope.

The friction and pressure to which all prominent parts of the extremities are exposed, cause, by the local irritation they produce, the effusion or secretion of a larger quantity of outer skin than can be got rid of by the ordinary processes of Nature. The scales consequently accumulate, and lie layer upon layer, forming indurated masses of larger or smaller size, constituting corns, callosities, or other diseases of the part, according to their situation, and the severity of the pressure or friction.

Few adults possess that firmness of step and ease in walking which Nature intended, in consequence of the confined and compressed condition in which their feet have been placed, by the unyielding material and bad shape of their shoes; the consequence is, that the natural

spring and muscular action of the foot are lost, and they are deprived of the assistance that would be rendered by the action of the toes in progression. This is not the only instance in which the artificial restraints of society affect the health and comfort of individuals. If a section of the sole of the shoe be applied against the sole of the foot, it will be found to be totally different from it in shape ; seldom does the leather extend to the little toe, it being either much narrower across the fore part of the foot, or else inclining too suddenly inwards to form what are called "rights" and "lefts," so that in rising on the toes then walking, the whole weight of the body is thrown upon the little toe, and sometimes on the joint of the great toe. After this kind of shoe has been worn from youthto manhood, the muscles and tendons become contracted, and the toes distorted in a

manner corresponding to the form of pressure to which they have been subjected, so that the attempt to expand the foot when it is placed on the ground without the shoe becomes a source of pain. I have seen the toes contracted inwards and downwards, like birds' claws, and prove a source of much inconvenience in walking.

In taking a retrospective view of the form of shoes until the nineteenth century, we shall find that fashion invariably dictated their peculiar shape. In the reign of Edward the Fourth they were worn so exceedingly long-pointed that a proclamation was issued to restrain their length; and in the reign of Queen Mary their breadth at the toes was equally preposterous, so that she was compelled to enact a sumptuary law to repress them within ordinary bounds. Still, amid all these changes, no mention was ever made of altera-

tions in the sole of the shoe until the time of Elizabeth, when, as may be gathered from the writings of Shakspere, they were worn rights and lefts. Launce, in the "Two Gentlemen of Verona," says—

"This shoe is my father;—no, this left shoe is my father;—no, no, this left shoe is my mother."—*Act II., Scene* 3.

And again, Hubert, in "King John," while describing the popular rumours of a French invasion, speaks of a tailor who—

"Standing on slippers, which his nimble haste
Had falsely thrust upon contrary feet."
Act IV., Scene 2.

Shakspere further alludes to corns as a sort of reproach—

"Cap. Welcome, gentlemen! Ladies that have their toes
Unplagued with corns, will have a bout with you.
Ah, ah, my mistresses! which of you all

Will now deny to dance? She that makes dainty,
she
I'll swear hath corns!"

ROMEO AND JULIET, *Act I., Scene* 5.

In the time of the first Charles and of Cromwell, high heels were in vogue, with broad toes in proportion; square-toed shoes were much worn in the reign of George the First, but afterwards became a term of reproach. In the times of the second and third Georges, ladies wore high heels tapering downwards to a point, equal to the flat surface of a shilling; their toes were forced into a close pointed shoe. There is a clever article on shoes in general, from the earliest records, illustrated by woodcuts, in the "Penny Magazine."

Feet are occasionally met with in which there is a malformation of the toes, arising from hereditary predisposition, and not from the distortion produced by wearing ill-made shoes. This

has been very properly called "the family toe." It is remarkable that the first toe is the one principally affected, and it is either curved so as to project considerably above the others, or else it becomes much elongated. The entire foot, in after life, will participate more or less in the distortion. It is developed very early, notwithstanding the utmost care is used to prevent it. Corns frequently form on the projecting part of the distorted toe or toes, giving rise to the idea that the corn is itself an hereditary formation. This, however, I do not consider to be the case. The shape of the feet is certainly the same in families, generally speaking, and there may be an innate disposition in the skin to take on the action requisite for the production of corns, if exposed to the usual exciting cause; but I do not think, when proper attention is paid to the make of the shoe, that, how-

ever much the toes may be distorted, corns will grow for no other reason than that the parents or other relatives were troubled with them.

Various means have been devised to straighten the curved toes, by the use of ligatures and the application of strips of plaster, and more lately by the operation of dividing the contracted tendon. Amputation of the toe has been occasionally performed, on account of the inconvenience which the distortion causes.

A TREATISE

ON

CORNS, BUNIONS,

ETC.

CHAPTER I.

CORNS—THEIR CAUSE AND GROWTH—HARD CORNS — CALLOSITIES — SOFT CORNS — NEURO-VASCULAR CORN—VASCULAR EXCRESCENCE—WARTS.

THE term corn has been indiscriminately applied to every thickening of skin, or excrescence, incidental to the feet; the name is derived from the horny structure of the external skin, but is not strictly applicable to every induration.

Although all corns are essentially similar in structure, they present varieties according to the parts upon

which they are formed, or the tissue that becomes involved. I have therefore classed them under the following heads:—Hard, soft, festered, and neuro-vascular corns; callosities, and vascular excrescence.

Pressure and friction are unquestionably the exciting causes of corns. Improperly made shoes invariably produce pressure upon the integuments of the toes and prominent parts of the feet, to which is opposed a corresponding resistance from the bone immediately beneath; in consequence of this, the secreting vessels are compressed, they become injured and congested, and a larger quantity of lymph is thrown out than is required for the formation of the new skin; the layers are generated considerably sooner than the outer surface is worn off, thus forming layer upon layer, which become interwoven, and adhere together.

If the cause be removed, the inflammatory action ceases, and the result is simply an external induration of superficial irregular scales or laminæ ; if continued, the irritation keeps up the increased action of the secreting vessels of the already thickened skin, producing bulbs or projections, generally of a conical shape, descending into depressions of irregular depths, according to the injury caused upon the immediate parts where the external pressure is most severe.

These bulbs are composed of layers, decreasing more and more in size as they approach the secreting point in the sensitive skin, where they become condensed, and are visible as white or yellowish specks, according to the colouring matter of the skin, when the outer portion of the induration has been removed.

These irregularities, or projections,

are what have been incorrectly called stems, or roots.

The descending point of the corn will frequently press on, and rupture some minute blood-vessel, producing extravasation of a red, brown, or black colour, the depth of tint depending on the length of time the blood has been effused. These discolorations are visible through the thickened skin, although they very seldom rise to the surface.

If the pressure should be very severe, and the point of the corn descends near the articulation of a joint, inflammation will ensue in the surrounding parts.

The pains caused by corns during their formation, arises from compression of the nerves by the shoe, and the congested state of the vessels, and usually ceases as soon as the shoe is removed.

The pain which is produced by a corn, when in a chronic state, is influenced by the different atmospheric

changes, varying in intensity according as the barometrical pressure is exerted upon the sensitive parts surrounding, or involved with the corn. It is well understood that these atmospheric changes act more or less upon the living body without causing pain, except in diseased parts; and as the corn itself is perfectly insensible, and not at all affected by the atmosphere, it is by the resistance it affords to the contraction or expansion of the surrounding parts that it becomes the cause of the pain which is experienced on these occasions.

It is difficult to state the precise weather that mostly produces pain; sometimes it is a cold easterly wind, which by its contractile action diminishes the calibre of the vessels, drawing the skin from the corn; at other times, extreme heat, which by increased expansion forces the sensitive skin

against it. The shooting pain most commonly complained of, is certainly experienced during that state of atmospheric change from heat to humidity which causes the barometer to fall, indicating rain, or when the clouds are surcharged with electricity prior to a storm.

Hypochondriacs and delicate females are very liable to be affected by all atmospheric changes, and frequently experience pain in their corns, even from the heat of the bed. Strong and robust persons, on the contrary, seldom notice, or are affected by the weather.

I have observed a kind of epidemic in some peculiar states of the atmospheric temperature, when every patient at the same time has been complaining of more pain than usual, and at those times I have frequently found the toes inflamed, and a small quantity of fluid under each corn.

It is a general remark with persons resident in the country, that they suffer most from their corns when in town, owing probably to the flat surface of the pavement causing an equal degree of pressure, to which they have not been previously accustomed.

Corns produced by friction alone are generally superficial, and are seldom very painful, or cause much inconvenience.

Persons of gouty habit have frequently a discharge of chalk stones following the extraction of a corn.

Hard Corns.—This is the general term by which all corns are commonly known, and is applied to that chronic thickening of the outward skin which is met with upon all prominent parts of the feet. It is the common corn which persons are in the habit of arranging for themselves with the least

chance of doing mischief. I shall, therefore, only notice those corns which cause the greatest pain, from the particular situations they occupy.

The little toe, from its position, is more subject to injury than any other part of the foot, and corns are constantly produced upon the whole of its outer surface. When deformed, either by being bent or pressed back upon the foot, so that the first joint stands higher than the others, there usually forms upon it a deep-seated corn, of a conical shape, the outer or external surface consisting of irregular scales, and the point penetrating towards the joint.

Sometimes there is a corn which is seated close to the root of the nail; it is acutely painful, and, to the unaccustomed eye, difficult to be discovered. This species of corn more frequently attacks young people, as soon as they

commence wearing stout shoes, which are usually made more pointed than the foot, so that the pressure is thrown exactly on the outer angle of the toe.

This kind of corn requires great dexterity in its removal, as it is very thin and deeply seated, without any surrounding thickening. If a corn is not developed, part of the nail will be destroyed, leaving in its place an equally painful and thickened skin.

Sometimes one toe stands much higher than the next, causing the end of it to be exposed to pressure, and to a similar formation of corns.

A very troublesome corn is found under the great toe-nail. It is generally the result of accident, or from the nail having been allowed to grow to too great a length.

From one or other of these circumstances, the soft parts beneath the nail are injured, the vessels pour out a

small quantity of blood, over which the corn is produced. The patient is seldom aware of the period at which the injury was inflicted, as the corn is slow in its growth. When fully developed, a black or deep red spot is clearly visible through the nail, and is the seat of severe pain.

Another form of corn is produced inside the inner fleshy flap of the great toe, extending in many cases under the edge of the nail. It is caused by the nail having been improperly cut, or by the first toe pressing against the flap and pushing it up higher than ordinary, so that the inner skin becomes thickened in layers, as a protection against the sharp edge of the nail. The corn is formed under these layers, several of which must be removed before it can be brought into view, or extracted. These cases especially require the skill of the chiropodist, and

may be attended with serious consequences if improperly treated :—

In very dry, harsh skins, corns or scales form in great numbers on the soles of the feet, in the hollow or arch, and on the under part of the heel.

They arise from constitutional disease of the skin, and produce little inconvenience unless they are allowed to grow higher than the surrounding integuments ; theythen become troublesome, by producing irritation.

Cases occasionally come under notice where the patient complains of considerable pain and tenderness on some of the toes, generally the little one, but no appearance of a corn can be detected. The toe, on examination, is found to be red and inflamed, and presents that state of irritability which precedes the formation of a corn.

In elderly people a small tuft or cuticular excrescence frequently forms

in the centre of the apex of the toes, under the nail, to which it adheres. It is generally unattended with pain or any other inconvenience, except to be incised when the nail is cut. It then becomes acutely painful, and bleeds freely.

CALLOSITIES.—This term is applied to the thickening of the skin which occurs in large layers upon the soles of the feet. These formations are principally situated over the projecting parts of the bones, upon the ball of the great toe, around the edge of the heels, and on all broad prominent surfaces of the feet.

No material alteration takes place beyond the thickening, for the numerous lines and furrows of the skin can be seen in continuation with those of the normal integuments.

In very dry skins the whole of the callosity appears rugged, and covered with

irregular scales, having in various parts small corns, frequently rising in single points or small clusters, which on being cut sometimes bleed, without giving pain or producing any inconvenience.

These indurations are more frequently caused by long-continued friction than by pressure, although they are occasionally produced by the latter only. When they are the result of friction, they arise from wearing an improperly made shoe, which allows the foot too much expansion, or room to move about, and rubs upon some irregularity or prominence on its inner sole. In this case they are generally very large, extending all over the part subjected to friction.

When they are produced by pressure alone, a corn, corresponding in situation to the projection in the shoe, forms about the centre of the induration.

In most feet subject to this complaint, the bones, at the articulations of the great and little toes, are very prominent, and the integuments covering them form thick projections, so much so, that the intermediate space constitutes an arch. In flat feet, thinly covered with flesh, the bones are distinctly felt, so that the finger can be placed between each. In this case callosities not unfrequently form on their under surface.

When the callosities are situated upon the ball of the great toe, they require particular attention, for if neglected, and the pressure continued, a troublesome corn forms upon the articulation of the joint. A callosity is often produced in this situation in consequence of the toe being distorted and retracted, either from original deformity, injury, or the change produced by rheumatism.

The first indication of a callosity is a slight redness of the part, which remains for some time unnoticed; but if the friction is continued, by wearing the same description of shoe, the irritation produces a larger quantity of new skin than is thrown off, so that layers form progressively one upon another, until the induration is fully formed.

When it is allowed to become of such a thickness—for it sometimes grows very rapidly—as by its pressure upon the sensitive skin to produce effusion into the tissue beneath, the extravasation can be seen through the skin in large patches, adhering to its under surface.

When improperly treated, inflammation followed by suppuration is the result; the matter causes the skin to crack, leaving deep fissures, with thickened edges, and often a dry, unhealthy

ulceration. This is very frequently the case when, from malformation of the foot, the diseased parts cannot be sufficiently protected. I have seen many such cases of very serious inconvenience to the patient.

In simple cases, all that is requisite is to have the thickened skin removed with care, and apply a piece of soap plaster. In the more severe instances, where callosity has given rise to ulceration, considerable care is required in the treatment.

It is of course absolutely necessary to remove the cause by which the induration has been produced ; and when it arises from malformation or distortion of the feet, to have boots so made as to avoid pressure upon the diseased parts. Where the complaint is upon the first or fourth bone, it will be of great service to have a hollow made in the sole of the shoe opposite to it, so

that the pressure may be thrown more upon the centre of the foot.

SOFT CORNS.—These are always situated between the toes ; they are of the same structure as all others, and derive their name from being constantly in a state of moisture occasioned by the perspiration or exhalation which collects in these parts.

Soft corns are not generally deep seated and do not project much above the surface, on account of the structure of the parts, and the compression they are subject to.

They are generally caused by the bone of one toe being pressed against the opposite joint, or by the little toe being forced down upon the bone of the next toe. All prominent parts on the inner side of the toes are liable to this formation.

Compression, which is unquestion-

ably the primary cause of the corn, is commonly produced by wearing very narrow-soled shoes, by which the toes are closely pressed together; so great is the pressure on the little toe, that it is often wedged down into the space against the lower part of the next, and causes the most painful species of soft corn.

These corns commence with a burning sensation between the toes, as if the parts were scalled, frequently followed by the formation of a blister, which is seldom observed until the serous fluid irritates the inner layer of the skin, and occasions pain. If the fluid is not evacuated or absorbed, a gelatinous concretion forms, which ultimately becomes a corn; or if it is discharged, and the new skin is not healthily reproduced, it thickens into layers, and a corn is generated.

Another indication is, a sensation as

if gravel or a small stone was between the toes, attended by itching and smarting pain, and sometimes by a slight cracking of the skin.

In severe cases, the symptoms commence by inflammation, the skin being but slightly thickened on some prominent point or articulation, and a corn is soon developed in the centre of the induration. It is recognised by being of a circular form, and of a yellowish brown or dirty red colour.

If it be not soon extracted, ulceration will probably take place, the foot become swollen, and the inflammation extend up the leg. Great pain is experienced in the part affected during the formation of matter.

The corn, when situated on the web between the third and little toes, shows itself as a white, spongy, and moist thickening of the skin ; it arises in many instances from want of sufficient care

in keeping the parts properly cleansed and dry. It will sometimes fill up the whole space or surface of the web, between the toes ; in other cases, the skin will be simply thickened, tough, and moist, with a corn fully developed in the centre.

A soft corn will sometimes appear as a circular white spot only, like a split pea : it is then generally situated on the middle joint, with a corresponding corn on the opposite toe.

It also commences as a small circular white thickening of the skin, rising similar to a pustule, having an orifice not bigger than a pin's point in the centre, and which is frequently concealed by a thin layer of skin, the removal of which permits the exudation of a small quantity of fluid. This corn is easily separated. It is painful when the toes are pressed together, and its

formation is always preceded by slight inflammation.

A very troublesome corn forms on the inner side of the great toe, with a corresponding one on the opposite toe. It is usually broad and flat, and the centre is bruised, with extravasated blood occupying either its entire extent, or else effused partially in small spots only.

In elderly persons whose feet do not freely perspire, and who have suffered for a length of time from this complaint, the corn is more strongly developed than in recent cases; the centre is harder, and appears of a darker colour; the layers are flat and much broader than in the ordinary corn, and surrounded by a whitish thick ridge or fringe of skin.

The treatment of soft corns varies in accordance with their position and

symptoms. They require, in all cases, to be very carefully removed, and frequently it is necessary to apply a caustic; but the treatment must always depend upon the state of the corn. It is, however, desirable that the toes should at all times be kept apart as much as possible.

It is requisite to caution persons suffering from these complaints to avoid applying violent remedies,—such as nitric acid, aromatic vinegar, &c.,—as they may do themselves serious mischief.

When the disease has been of long standing, although relief may be afforded from time to time, its complete eradication is exceedingly difficult, as the spongy skin is very liable to become a regular growth.

I have met with a peculiar form of soft corn, where chalk has been secreted beneath it. This disease is of rare occur-

rence, and attacks those persons only who are subject to gout ; it is attended with considerable pain and annoyance.

There is another disease affecting these parts of the toes, which, although not absolutely a soft corn, should be noticed here, as it may be mistaken for that complaint by persons who are subject to it. It is a kind of neuralgia seated between the toes, but which fortunately is not very common. It constitutes a most troublesome and severe complaint, and one very difficult of removal.

The patient complains of a severe pain between two of the toes, along the inside of one or the other, generally the second and third, he can seldom tell which ; it extends up the leg, and is increased when the toes are pressed together, more particularly after walking. Notwithstanding the most careful examination of the part, no obvious

cause had been discovered for the pain, and like all similar affections of the nerves, there is not any remedy to be depended upon, as it appears to defy all medical treatment.

There is, however, sometimes a little redness and swelling apparent, or perhaps the bones forming the middle joint project in a slight degree, but not so much as to be noticed unless the attention be especially drawn to them.

The disease is not permanent, but continues for a time, and then either ceases altogether, or disappears for a longer or a shorter period. It is in all probability connected with some constitutional derangement. The only remedies which I have found to be beneficial are counter-irritants, and the elevation or depression of one of the toes by mechanical means, to take off pressure from the affected nerve.

Another form of neuralgic affection

occasionally attacks the nerve on the sole of the foot, below the third and fourth toes, but nearest to the third. The spot, where the pain is experienced, can at all times be exactly covered by the finger. The pain, which cannot be produced by the mere pressure of the finger, becomes very severe whilst walking, or whenever the foot is put to the ground.

The complaint appears to me to be very similar to that which I have just described, and I cannot assign any cause for its occurrence. Relief can only be afforded by the application of lateral compression ; this acts by drawing the bones closer together, and thus affording protection to the affected nerve, which, when the parts are capable of expansion, is more exposed to pressure.

FESTERED CORNS.—In many cases of

deformity, where the toes are by contraction drawn from their normal position, the middle joints become very prominent, and the skin covering them thin and tightly stretched. Whenever severe pressure or friction is exerted on these projecting points, a very painful and troublesome corn is produced.

In some cases inflammation supervenes, and matter forms under the whole extent of its circumference.

As the inflammation increases, a corn is fully developed about the centre of the induration, seldom exceeding in size the head of a large pin, and decreasing inwardly to a thin thread-like point. This excites vascular irritability, and rapidly causes suppuration to take place in the bursa * beneath, which has been inflamed by the pres-

* This word is used to designate a small bag containing fluid, which serves to lubricate the tendons in the neighbourhood of joints.

sure of the point of the corn, which, when extracted, has generally a part of the sac adhering to it. Sometimes the bursa is diseased without any thickening of the outer skin, and the only external appearance is the redness and swelling of the toe, with a very small white spot having a minute speck in the centre, usually situated upon the most prominent part of the joint.

When the corn is in this state, and not properly attended to, the serous fluid which is effused will cause great irritation, with excruciating pain and violent inflammation, not only in the toe but over the whole foot.

Neuro-Vascular Corns.—This peculiar and painful species of corn is frequently met with in persons of fair complexion, with very fine and moist skins, in whom the true skin is consequently more than usually vascular

and more likely to take on inflammatory action from pressure.

It forms upon the projecting parts of the toes, according to their position or deformity.

When fully developed, the skin covering the affected part is slightly thickened and semi-transparent, having villi or nervous fibres clearly visible, running in zigzag whitish lines within the induration, and small corns appearing between them, like white specks, corresponding in form to the cells or depressions they occupy.

Although the outer skin of these corns is as insensible as any other thickening, the intermingled nervous filaments are so exceedingly sensitive to pressure, that the softest leather of any shoe can scarcely be borne, and the least touch in attempting to remove any part by an operation gives the most excruciating pain.

The peculiar character of this corn

is the result of a more severe degree of pressure on the part than that by which the ordinary thickening is produced, and consequently a more intense inflammation is caused, so that the whole of the portion of true skin subject to compression participates, and its vascular structure, together with the nervous fibres, becomes enlarged, and to such an extent that, when the inflammation has been partly subdued by the removal of the shoe, by poultices, or by any other means which have been employed by the patient himself, the enlarged structures do not return to their normal condition, but constitute a network, within whose meshes is deposited the adventitious matter produced by the thickening of the skin that is continually going on, and which, becoming condensed, forms the small corns situated between the nervous fibres.

By the time the inflammatory action

has entirely ceased, the nervous filaments are completely matted, as it were, within the outer skin.

Persons seldom apply for professional assistance in the acute stage of the complaint, for, when first attacked, the pain indicates the necessity of removing the pressure, and the inflammation is generally allayed by poultices or some simple application, which gives relief for a time, but does not remove the corn. When the same kind of shoe is again attempted to be worn, the severity of the pain produced obliges the sufferer to seek professional assistance.

I am fully of opinion that this is the species of corn which, when cut unskilfully, or improperly treated in persons of inflammatory constitution, and particularly in aged people, has been productive of very serious consequences, and even in some instances of death, from the resulting mortification. This

latter termination occurs more especially with persons advanced in life, in whom the lower extremities have already less vitality than other parts of the enfeebled frame, and, consequently, are unable to resist the effects of the additional irritation caused by an unskilful operation.

VASCULAR EXCRESCENCE.— A very painful vascular excrescence is occasionally met with, situated on the soles of the feet, or under the heel; also on the little toe, and sometimes on the sides of the great toe, close under the nail. It is easily distinguished from a common corn, as it has more the appearance and character of a wart, but cannot be so considered, as they come principally on the hands and fingers, and on parts where there is no pressure; are seldom painful, and grow without any apparent cause: but this excres-

cence is always painful, and is never produced without previous pressure.

This disease is a deep-seated spongy or vascular substance, forming a circumscribed tumour, not projecting much beyond the level of the thickened skin; when fully developed, the whole of the surface is studded with red and black specks, and the surrounding integuments are inflamed and swollen.

In some cases the minute extravasations are not distinctly defined; the excrescence then appears as a softened tuft, the vascular fibres composing which seem to be of unequal length. When an attempt at extirpation is made with the knife, hæmorrhage to a considerable extent immediately follows, all the minute vessels pouring forth their contents very profusely.

This disease has been noticed as connected with a cancerous diathesis, but I am perfectly convinced that there

is nothing malignant in its character, never having met with a case which did not yield to proper treatment, and in which an effectual cure was not obtained in a very short time; it is likewise satisfactory to know that the disease never returns.

In the generality of cases the patients are young, and have what is usually called fleshy feet, moist and clammy tissue, and the skin thin. It is seldom met with in children under ten years of age, nor in aged persons; women are less liable to it than men.

The principal symptoms are a burning sensation in the part affected, which is very sensitive to the touch, attended with aching and throbbing pain, particularly after walking, when the shoe has been removed, and on lifting the foot from the ground. I have never been able to ascertain satisfactorily the cause of this complaint, none of the patients

recollecting any previous indication before the pain became so intense as to require medical aid. Some persons have observed the skin to be somewhat thickened on the part, but did not experience any pain or inconvenience.

The general treatment is simple, and requires but perseverance to effect a radical cure.

WARTS.—These are generally small, hard, indolent tubercles or excrescences, situated on various parts of the body, but principally on the hands and fingers. In their structure they differ altogether from that of corns, as they arise directly from the true skin, whereas corns are a disorder of the outer skin alone.

Warts are described by authors as of three kinds, the division into varieties depending solely on their shape. The round are the most common. The flat warts are broader and longer, but

not so prominent as the preceding ; and the third variety are the pendulous.

Those common, well-known warts, which arise either from some local irritation of the skin or without any known cause, and which are altogether independent of the constitution, are alone treated of in this chapter.

They occur much more frequently on the hands of children and young persons than on those of the more advanced in life, and occasionally persist or return, in spite of every treatment that can be adopted, yet are known to disappear spontaneously.

Innumerable popular remedies have been from time to time recommended for the treatment and cure of warts. Some of them are of a most singular and extraordinary nature ; others presenting a great likelihood of success from the character of the remedy itself : many of them still hold possession of

the public mind, and are occasionally had recourse to.

Etmuller seriously mentions as a certain remedy the green moss gathered from the skulls of persons who have died a violent death; this is to be exposed to the air and made into a paste; and Juncker states that a thread drawn from the shirt of a dying criminal from near the arm-pit is equally valuable: as many knots are to be tied in the thread as there are warts to be destroyed, and each knot is to be rubbed on the corresponding wart, after which the thread is directed to be buried in a moist place. As the knots rot away, so, says Juncker, will the warts consume and disappear. He adds, he has never known it to fail. A piece of stolen raw beef is also occasionally employed for the cure of warts, by rubbing them with it and afterwards burying it; its decomposition will be attended by a

similar process in the warts. Many more such absurdities are to be found in the works of ancient writers on surgery. Warts are sometimes even charmed away. It is almost needless to observe that these and other superstitious observances, which are now principally confined to weak-minded and uneducated persons, are totally incompetent to effect the desired purpose.

The general methodic treatment consists in the application of caustic, alkalies, acids, and escharoties, or else their removal by the ligature or the knife.

The pendulous wart, which is connected with the integuments by a small footstalk, is readily removable by the application of a ligature of horse hair, or waxed silk, thrown around and drawn tight, and secured with a surgeon's knot. When deprived of the access of blood, by which its vitality

is sustained, the wart will gradually shrivel up and separate. If there should afterwards appear any remains of a root, it must be touched with nitrate of silver until destroyed, for if any portion remain, the wart is certain to be reproduced.

CHAPTER II.

BUNIONS AND CHILBLAINS.

Bunion.—The word bunion, which has been almost indiscriminately applied by the public to any hard and painful tumour, or corn on the feet, should be restricted in its use to designate an enlargement over the first joint of the great or little toe, produced by pressure or by some other cause, effecting a change in the position of the joint.

The derivation of the term is somewhat obscure, nor do any of our lexicographers allude to it. It is probably a modification of the word "Oignon," which was formerly and is still, used in France to designate the disease.

Boyer says it is called "oignon," or "onion," as well from its rounded shape as from the thin scales of thickened skin which form the upper surface, and can be removed separately, like the layers of an onion.—("Traité des Maladies Chirurgicales.")

Very little information can be gathered from the works of the early writers on surgery respecting bunions. They do not mention any disease which, from the description, can be considered as the complaint in question; and even later authors have thrown but little light upon the subject, as they have generally chosen to adopt the opinions of those who have preceded them, in preference to investigating for themselves. They speak of a bunion merely as a species of corn, without reference to the diseased condition of the joint which follows.

One of the most frequent and certain

causes of a bunion is the wearing of shoes made too short, and with a narrow sole, so that the feet are subjected to an undue degree of pressure, both laterally and longitudinally, and the whole weight of the body is thrown upon the articulation of the bones of the feet with the great and little toes, there not being sufficient room for the foot to expand, nor for the great toe to extend itself, so that the proper motions of the joint and the regular action of the muscles are impeded, whereby excruciating pain is produced, followed by inflammation, malposition of the great toe, and the ultimate formation of a severe bunion.

When a bunion is produced by distortion, or hereditary malformation, the great toe, which should be in a straight line with the foot, lies transversely over or under the next toe, causing a projection of the joint, which is sub-

jected to continual pressure on the most prominent parts, gradually increasing in severity as the swelling enlarges, until a bunion is fully developed.

Constitutional derangement, producing a relaxation of the system, may also act as an occasional cause of bunion in persons predisposed to that complaint, by inducing a feebleness in the joints, principally of the great toe, with pain after walking, which frequently continues after the shoes have been removed and the feet are at rest. This cause is influenced by a peculiar state of atmospheric temperature, affecting the feet in particular constitutions.

Among the other constitutional causes may be ranked rheumatism and gout, which induce progressive deformity of the feet, distort the toes, and carry, by the contraction of the flexor tendons, the point of the great toe obliquely across the others, and thus produce

that state of the foot by which the enlargement of the joint constituting a bunion is caused.

As persons advance in age, the fluids of the system are not supplied in the usual abundance; and this is especially the case with regard to the secretions lubricating the joints, which, in consequence, become stiff, and may even become partly anchylosed. This is not an unfrequent occurrence in the joints of the great toe of aged persons, and of course does not admit of relief. Little inconvenience, however, is occasioned, unless from the pressure of the shoe, and the want of elasticity in walking.

A bunion, therefore, consists of an enlargement or thickening of the common integuments over the first joint of the great toe, caused either by compression, or by an unnatural obliquity of the great toe outwards, by which the posi-

tion of the joint between it and the bones of the foot is changed; it seldom affects both feet at the same time. When the disease is first noticed, it is attended with trifling pain and inconvenience, but from the continued and increasing pressure, and the non-removal of the cause that originally produced it, inflammation is set up, the skin covering the joint becomes involved, thickens in layers or scales over a considerable surface, and is studded with clusters of small superficial corns.

If the disease, in this advanced stage, be neglected or improperly treated, or if the patient take an unusual degree of exercise with a more than ordinarily tight shoe, the inflammatory action will be renewed or increased, the bursa beneath will become enlarged between the skin and the bone, and fluid will be effused, causing considerable swelling over the articulation, attended with ex-

quisite pain and tenderness, which will be felt, not only in the joint itself, but also extending to all the surrounding parts.

If the disease still proceeds, the pain and swelling continue to increase, and suppuration takes place within the cavity of the bursa, which on account of the depth of its situation and the abnormal thickening of the integuments, is very slow in bursting externally. Sometimes the fluid burrows into the adjoining cellular tissue, producing ulceration, and in other cases causes caries of the bones.

The pain and inflammation in these cases come on sometimes so suddenly, that the patient is apt to mistake the attack, and attribute it to gout, from which, however, it may easily be distinguished by the external tenderness of the joint and the persistence of the inflammation in the latter disease,

whereas in bunions the part is not painful to the touch, and the inflammatory symptoms soon subside with the removal of the shoe, and the adoption of the usual treatment.

A similar protuberance is occasionally met with on the corresponding joint of the little toe. From its position, it is not subjected to the same amount of pressure in walking, but the pain and inconvenience otherwise are not less severe than in ordinary cases in which the joint of the great toe is affected. The symptoms and appearance are precisely the same ; but in the worst cases, although attended with great irritation, the inflammation rarely does much mischief, or extends further than the bursa ; it is more amenable to proper treatment.

When this tumour is caused by the little toe being forced obliquely out of its position, and under the next, it

will sometimes enlarge to a great extent, so as to project considerably ; the skin will be thickened without inflammation, and also without pain, except when pressed upon. The chief complaint in this case arises from the unsightliness of the joint.

Although a radical cure of a perfectly-formed bunion can seldom be promised, yet in most cases, if not in all, relief from the pain and other inconveniences may be afforded by proper treatment. The time required for this purpose will vary very much ; in many cases palliatives must be used for a length of time before a cure can be effected, and even then the enlargement of the joint does not entirely disappear. In all cases it is advisable not to have recourse to violent modes of treatment, more especially when the bursa is inflamed, as very serious consequences have been known to ensue.

When a bunion first forms, it appears inflamed, but is not attended with much swelling ; the pain in the joint is mostly felt when the shoe is worn ; it continues for a few days and then subsides, re-occurring, however, at intervals for many months, without increasing in severity, so as to require medical advice. If it be caused by wearing a short, badly-made shoe, it will be immediately relieved by removing it, and and a cure effected by bathing the foot night and morning with a spirit lotion.

Even if the shoe should not appear afterwards to press injuriously on the foot, it ought not again to be worn, for if the patient persist in doing so, the pain and irritation will gradually increase in proportion as the foot is used, and be felt more especially in the joint, under the ball, and along the toe. Inflammation will extend in an equal degree, and proceed over the instep ; the

integuments covering the joint will be thickened, the skin will form scales, or layers, and corns be generated, either on one elevated point, or else in small superficial clusters on various parts of the bunion.

Where the alteration of the joint depends upon constitutional causes, external remedies are of but little service, the disease being influenced chiefly by the state of the atmosphere, improving as the weather becomes more favourable, and getting worse with an opposite state of the temperature. As the general health is affected, so in a manner are also the bunions which arise from symptomatic derangement.

A small tumour is occasionally found on the top of the instep, caused by the pressure of the boot. It is situated under the skin, and is hard and immovable. When the accompanying inflammation has subsided, and the pressure

that produced it has been removed, the skin is occasionally found to be thickened, and a corn, which is superficial and easily removed, is the result.

In cases of rheumatic or gouty distortion of the feet, the disorders should be treated on general principles, those remedies being used which are employed for the removal of the same diseases when attacking other parts of the body.

CHILBLAINS. — Although chilblains come more directly under the notice of the surgeon than of the chiropodist, yet as they affect the integuments of the feet, it will not be considered inconsistent with the nature of this work to offer a few observations on them.

A chilblain is the result of exposure to severe cold, followed by the too sudden application of heat, and is produced by the rapid distension or congestion of

the blood-vessels, which had been previously contracted. It presents the appearance of an inflammatory swelling of a lurid red or deep purple colour, and is accompanied with intense itching and pungent pain, which frequently become intolerable. Persons of a weakly or scrofulous constitution, and the young and aged, are much more liable to the formation of chilblains than are the robust and healthy. They sometimes arise from constitutional causes, more especially such as impede or diminish the circulation, and are met with principally on the hands and feet.

When neglected or improperly treated, the colour of the affected part deepens; it vesicates and becomes ulcerated. There is, however, but little danger to be apprehended, when proper care and attention is used.

As preventive measures, the best

plan to adopt is wearing warm coverings to the feet, and taking moderate exercise, walking rather briskly, being particularly careful not to approach near the fire whilst the feet are excessively cold and painful. Gentle friction with a flesh brush, or a coarse towel, may be frequently used with advantage, taking care not to abrade the skin; wearing oiled silk socks to come up above the ankles has also been found useful.

The remedies recommended are innumerable, but the benefit to be derived from any of the recipes will depend upon the state of the local disease and of the general health of the patient; those most in use are sea-water or brine, stimulants of every description, such as camphorated spirit, vinegar and spirits of wine, turpentine, soap liniment with cantharides, &c.

These applications must, however, only be used previously to ulceration.

When the chilblain breaks and becomes what is termed a "kibe," it should not be tampered with, but the ordinary medical attendant should be consulted.

CHAPTER III.

THE NAILS AND THEIR DISEASES.

THE NAILS are placed at the extremities of the fingers and toes, to cover and protect from injury the numerous sensitive nerves of touch. They are composed of a horny, insensible structure, arranged in laminæ or layers of longitudinal fibres, similar to whalebone, and running from the root to the apex. They adhere upon the under or concave surface by rugæ or grooves to the true skin, by which they are maintained in their situation.

Beyond the root or semilunar substance the true skin is much more vascular, and imparts a degree of red-

ness, which is visible through the transparent structure of the nails, varying in intensity according to the temperament of the individual, and also according to the existence of certain diseases.

The nails are generally fully developed at birth, and continue to grow, under various modifications, until death. Their growth is rarely obstructed by fever or disease of the skin.

The Toe Nails are liable to many disorders from accidents, and to peculiarities in their growth, taking on different appearances according to age and altered secretions. They are somewhat thicker than those of the fingers, although similarly constructed, and, consequently, are better calculated to protect the toes from many serious injuries they might else be subject to in walking.

There are some nails, however well

formed, which after a time begin to take on an increased growth, and acquire in a few years such a degree of thickness and deformity as to render it exceedingly difficult to cut them with the instruments generally in use, and consequently they are allowed to grow until they cause inconvenience and pain. In this state, the assistance of the chiropodist is required to cut the nails, which must be done very carefully, with a strong pair of nail nippers.

The nails are capable of being bent or curved by heat, moisture, and pressure, and very frequently, when allowed to grow to a great length beyond the point of the toes, are compressed by the shoe into various shapes, in the same manner as heat and pressure act upon the common horn.

In early life, the fibres, or longitudinal lines, are not strongly marked,

and the nails are much more supple and thin than at a later period. As we advance in years they appear more opaque, and, without any particular disease, become harder and thicker.

In some persons a spongy substance forms under the edge of the great toe nails, unattended with pain; it adheres to the nail itself, and is an exuberant growth from the secreting surfaces beneath. It is easily picked out, leaving a hollow between the nail and skin.

This increased secretion appears to be thrown out for the protection of the sensitive parts beneath, and ought not to be removed unless, by being concreted under the edge of the nail, it causes pressure, and consequently pain. It is softer on the inner side of the nail, particularly if covered by the first toe; it is then of the consistency of pomatum, and causes a permanent stain on the nail.

There is frequently a peculiar spongy substance under and about the centre of deformed nails, of honeycomb appearance, very different from that just described, from which oozes a disagreeable ichorous discharge, loosening the nail as far as the disease extends. It is not very painful unless the nail is lifted up by sticking to the stocking, but requires to be attended to, as it is sometimes followed by ulceration. The cause is difficult to ascertain, as persons are generally not aware of having met with any accident by which the complaint could have been produced. By using proper remedies, the oozing soon ceases, and the toe gets well.

A very severe accident occasionally arises from persons scraping the centre of the great toe nail, in the belief that it will grow thicker where it has been scraped, and thinner at the sides, so as to prevent its growing in. This, how-

ever, is an erroneous practice, and, by continuing this method upon the same places, the nail will become broken with irregular edges, which press against and inflame the parts : the irritation soon produces a fungus, which rises through the opening, and is exceedingly painful.

At times the side of the nail will curve inwards without any thickening, so as to enclose the flesh ; it is not painful unless when pressed upon, and only requires the nail to be kept closely cut. I have seen a case, however, where the curvature extended nearly to the centre of the toe ; it was exceedingly painful, for which I could not account, until I removed the upper part of the nail, when a corn was discovered beneath it, which had not been visible externally. Immediate relief was afforded by its extraction, but when the nail grew again, it resumed its curved form.

A trifling complaint often happens to the outer side of the great toe nail by the splitting of a longitudinal fibre, or thin edge, from the top to very near the root: it does not cause any pain, unless it becomes entangled in the stocking, so as to be torn further down into the quick. The piece must not be pulled out, but should be carefully separated from the skin, by first wetting the part with water, and then dissecting it out with a small cutting instrument, taking care not to wound the flesh.

In cases of accident from violent collision of the toe against a stone, or any other hard substance, extravasation will immediately follow the blow, and be attended with great pain; if the injury is very severe, the nail becomes loosened and falls off, and a new and perfect nail will be again produced. If the whole of the nail is not detached,

and the loosened part requires to be cut away, it frequently follows that a deformity is the result, particularly if the injury extends to the semilunar fold. Immoderate exercise will likewise cause the nails to fall off, without any apparent local cause, excepting an uneasy sensation in the toe, around the insertion of the nail, together with a slight degree of swelling and redness.

The most severe and painful injury to which the great toe nails are liable, is that caused by the fall of a heavy weight, or from the tread of a horse. The soft parts of the toe are generally very much bruised and inflamed ; and the extravasation commonly extends to the secreting vessels at the root of the nail, so that a larger or smaller number of the layers of which the nail is composed lose their adhesion to the root and become incapable of assisting in its further nourishment.

When the inflammation has subsided, the nail which has been injured very soon falls off, leaving the part covered and protected only by a new skin. Nature, however, endeavours to supply a new nail ; but as the secreting glands at the root have also suffered from the accident, their power is greatly diminished, and an imperfect nail is the result.

When the nail does not extend to the end of the toe, a very thick yellowish cuticular substance supplies its place. After this state has existed for several years, it becomes dry and brittle, as if it contained a large proportion of the earthy phosphates.

I have known some persons who have shed their nails periodically, without suffering any inconvenience, and being, in fact, scarcely aware of it at the time of the occurrence.

Sometimes, in putting on a tight

boot, the stocking is drawn up at the heel, by which the tops of the nails are compressed downwards, producing severe pain, and if long continued, it may cause them to fall off.

The usual time for the growth of a new nail is from four to six months, much depending upon the healthy state of the secretions.

The most formidable disease connected with the toe nail is that which is called "the nail growing into the flesh." It is met with most frequently in the great toe, but all the other toes are liable to the same complaint, but less severely. It is caused by an improper manner of cutting the nails, or by the flap of flesh being forced up against the edge of the nail, from wearing shoes too narrow, or badly made across the toes, or from the edge of the nail being curved, or taking some other irregular direction.

Persons, when they first feel pain in the sides of the toe, are apt to regard it as caused by the nail having been allowed to grow to too great a length, and accordingly commence cutting it, thence deriving temporary relief. In consequence of the pressure of the shoe, which is still continued, the flap is forced more against the remaining rough edge in walking than before, and there is consequently more pain and uneasiness experienced, but lower down, nearer the root. The flap thickens, is pushed upwards still further, and partially covers the nail, which, as the pain continues, is again and again cut, until the scissors can no longer reach the part which is supposed to cause the suffering. The consequence is, that a point is left which penetrates the flesh, keeps up and increases the previously existing irritation, produces severe pain and ulceration, and if neglected,

fungus sprouts forth from the part most affected.

In other cases, the nail forms such a decided curve under the flap, that its edge, along the whole length of the toe, is imbedded in the soft parts, which become inflamed and so much swollen, that not above one-half of the nail can be seen. Walking will increase the inflammation, and ulceration will take place in the whole length of the furrow. Under improper treatment, or neglect, this state will continue with many persons for months, until the whole is covered with fungus, or what is denominated proud flesh. The pain will then be so severe, that the weight of the body cannot be borne upon the toe.

Of the preventive or palliative measures, I shall only notice those which have been most commonly in use, or have been recommended from their peculiarity. Cutting a notch in the

upper surface of the nail, and scraping the centre with a knife or a piece of glass, is one of the most ancient operations that have been employed; cotton or lint has also been pushed under the edges of the nail, for the purpose of raising the corners; and then followed the use of tinfoil or silver plate, with the same intention of preventing the nail penetrating into the flesh. Another plan was recommended a few years since, which consisted in scraping the nail very thin along its upper surface, and afterwards applying a square piece of cork on the part, and retaining it there with a bandage tightly applied, so as, by the pressure on the centre, to elevate the sides of the nail.

These mechanical means have seldom succeeded, because the substance placed under the nail is pressed by the thickened curvature more severely upon the flesh, and, consequently, can seldom

be borne for any length of time. Another objection applies to the method last alluded to, because no common shoe will admit the foot with the cork and bandage.

The most general application used by the profession for this disease—without having recourse to instruments—is nitrate of silver, freely and repeatedly rubbed between the nail and flap, with the intention to destroy both. This sometimes succeeds, when the disease does not arise from a point or sharp edge of the nail penetrating into and irritating the flesh, and the ulceration is not very extensive.

When the nail has penetrated into the flesh, and ulceration has commenced, these palliative measures prove of but little service, even when practised before the appearance of proud flesh, and relief can only be obtained by the excision of the diseased part of the nail.

The operation in general use in this country is that practised by the late Sir Astley Cooper, and consists in passing one limb of a strong pair of scissors under the nail, slitting it up to the root, and then pulling out the piece, when detached, with forceps.

Dupuytren used a straight pair of scissors, which he forced beneath the nail, near the edge of the fungus, and divided it longitudinally from the top to the bottom ; the part of the nail to be removed was then laid hold of with the forceps, and turned suddenly back, by which it was separated from its connexion with the parts beneath ; it was then cut away at its base with the scissors.

I have, however, for many years succeeded in these cases by much simpler and easier means. This consists chiefly in removing the horny structure of the nail from the epidermis to

which it adheres. This operation is attended with comparatively little pain, and has, moreover, the great advantage of rarely confining a patient to his room for a single day, whereas, in the above operations, it was not unusual for the cure to be extended over a period of two or three weeks.

THE NAILS OF THE FINGERS, when well formed, contribute greatly to the symmetry of the hand. They constitute in the lady an important feature of personal attraction.

According to European fashion, they should be of an oval figure, transparent, without specks or ridges of any kind; the semilunar fold, or white half circle, should be fully developed, and the pellicle, or cuticle, which forms the configuration around the root of the nail, thin and well defined, and when properly arranged, should represent, as nearly as possible, the shape of a half filbert.

The proper arrangement of the nails is to cut them of an oval shape, corresponding with the form of the fingers; they should not be allowed to grow too long, as it is difficult to keep them clean; nor too short, as it allows the ends of the fingers to become flattened and enlarged, by being pressed upwards against the nails, and gives them a clumsy appearance. The skin which forms a semicircle around, and adheres to the nail, requires particular attention, as it is frequently dragged on with its growth, drawing the skin below the nail so tense, as to cause it to crack and separate into what are called agnails. This is easily remedied by carefully separating the skin from the nail by a blunt, half-round instrument. Many persons are in the habit of continually cutting this pellicle, in consequence of which it becomes exceedingly irregular, and often injurious to the

growth of the nail. They also frequently pick under the nails with a pin, penknife, or the point of sharp scissors, with the intention of keeping them clean, by doing which they often loosen them and occasion considerable injury.

The nails should be cleansed with a brush, not too hard, and the semicircular skin should not be cut away, but only loosened, without touching the quick, the fingers being afterwards dipped in tepid water, and the skin pushed back with a towel. This method, which should be practised daily, will keep the nails of a proper shape, prevent agnails, and the pellicle from thickening or becoming ragged.

When the nails are naturally rugged, or ill-formed, the longitudinal ridges or fibres should be slightly scraped and rubbed with lemon, afterwards rinsed in water, and well dried with the

towel; but if the nails are very thin, no benefit will be derived by scraping; on the contrary, it might cause them to split. If the nails grow more to one side than the other, they should be cut in such a matter as to make the point come as near as possible in the centre of the end of the finger.

The biting or picking of the nails is an unfortunate and pitiful habit, which can seldom be prevented, and frequently continues for life; in many cases they are so disfigured as to be scarcely visible, and that which remains is covered with skin, so that the tops of the fingers appear clumsy and unsightly.

For this disagreeable habit my general practice is, to remove as much as possible of the thickened skin which confines the nails, and cover one or two of them with black sticking-plaster, so that the person on looking at the

black spots, may think and recollect for what purpose they were placed there ; at night, gloves should also be worn.

It is a most remarkable fact, that middle-aged persons who are addicted to this pernicious habit seldom or ever refrain from it, and, when in thought, have their fingers to their teeth, as if they were gnawing a bone.

The finger nails are liable to but few accidents that require notice, excepting extravasation from violent pinches or severe contusions, which often cause them to fall off. If cold applications are used immediately after this accident has occurred, the pain, will soon be relieved, and the mischief which generally follows may be prevented. If the bruise be very severe, and the pain should continue, a spirit lotion with a few drops of laudanum in it should be applied.

The nails are sometimes accidentally torn across, the laceration running down laterally, one side or the other, in the direction of the fibres, part of the nail being detached from the integuments. The necessary treatment consists of the removal of the loose part as speedily as possible, and then applying cold cream, or any other emollient ointment, after which it should be properly protected with a finger-stall of soft kid leather. The pain soon ceases, and in the usual course of time the new nail is formed.

It may be proper here to remark, that nature does not renew any detached part of a nail, either from the centre or sides; the renewal of the deficiency is effected only by the progressive growth at the root, which is ultimately carried to the end of the finger.

When a splinter of wood, or any

other substance, has been forced under the nail so far that it cannot be laid hold of with the forceps or tweezers, and yet is visible, the readiest means for its extraction, and that which is attended with the least pain, is to cut down upon it, by carefully removing a narrow wedge-shaped piece of the nail, until the end of the substance can be taken hold of with the forceps. Cold water dressing should then be applied for a few hours, and the part afterwards protected with a piece of black caoutchouc sticking-plaster.

The nails are, in many persons, very liable to split longitudinally, when they have grown to a certain length, particularly if they are of thin texture, and the individual has a dry skin. There is usually a line or fine ridge running along the nail, indicating where the splitting takes place ; it is exceedingly disagreeable and annoying, as the nail,

if not properly cut, is apt to catch in almost everything the finger takes hold of, and sometimes is torn downwards, producing severe pain. The tendency to splitting is very seldom perfectly cured, but by proper management may be prevented to a certain exent. Very little is required to keep them in order : they must be kept cut as short as possible, and if the split extends below the part which is usually cut, it should be covered with sticking-plaster.

The most painful disease is an inflammatory swelling around the nail called paronchia, or whitlow. It sometimes extends to the root, and is followed by suppuration and ulceration under the edge of the nail. In the worst cases, deep-seated abscesses frequently destroy the soft parts, and injure the covering of the bone. The disease has been divided into different species, according to the situations

which it occupies. It is not always a local complaint, but is connected with constitutional debility, and many young persons are subject to it periodically. This disease should be placed as soon as possible under surgical treatment; for if neglected, it might prove of serious consequence.

CHAPTER IV.

ON THE MANAGEMENT OF THE FEET.

THE proper management of the feet is of the greatest consequence to health and comfort, nor is there any subject connected with medical science which requires more attention. However trivial the instructions I am about to offer may appear, their value will be appreciated when the necessity of keeping the feet in proper order is taken into consideration.

From the first wearing of socks and shoes, great care and attention are requisite. In the first instance, the socks in summer should be made of fine cotton or silk; in cold weather, of a woollen fabric, and of sufficient length,

that every toe may have room to extend itself.

Children in the nursery should have their feet examined at all times when the socks are removed.

The feet should be washed evening and morning, the same as are the hands, and wiped thoroughly dry, particularly between the toes ; the nails should not be cut too often, nor at any time shorter than to be on a level with the tops of the toes. It is also advisable that the shoes be a size larger than the foot, and made of soft kid leather.

When there is a tendency to hereditary malformation, it generally begins to show itself in the toes of one foot, but sometimes in both, from the age of four to seven years. The deformity commences particularly in the first toe, which lies over or under the second, or the upper part of it is confined between the great toe and the second, so that when they are all pressed to-

gether the middle joint of the first toe is elevated higher than the others, This hereditary development or malformation is very remarkable, and I have had many opportunities of observing it.

If the malformation is very considerable, it may be advisable at this early age to endeavour to straighten the toes by mechanical means.

About this period of life—from four to seven years of age, and in some instances earlier—corns which are easily removed are apt to form superficially upon the projecting points, and should be picked out as soon as the thickening is visible. If the corn soon returns and gives pain, it should be submitted to a competent practitioner; for by proper management and attention, many years of suffering and inconvenience may be prevented. It matters not whether they are caused by heredi-

tary or constitutional predisposition, or mere friction ; they cannot be too soon attended to.

From the age of seven years and upwards, in consequence of the child taking more exercise and wearing stronger shoes, corns are of more frequent occurrence ; and the soft species which forms between the toes is the one most frequently developed, occasioning great pain, which the child endeavours to ease by walking on the inside of the foot, and throwing the weight of the body on the edge of the great toe and inner side of the heel, thus causing the ankle to turn outwards, inducing great weakness in the feet, and producing an unseemly roll in walking.

Nurses should watch children, when at play or walking, to see that they place their feet firmly on the ground ; and if any irregularity is perceivable

in either or both feet, such as rolling from side to side, or walking on the inside of the foot, the toes should be carefully examined, as most probably a soft corn will be found on the web between the third and little toes, and frequently in a state of suppuration, for many children have a dread of anything being done to their feet, and endeavour to relieve the pain in all manner of ways, rather than complain.

If the inner ankle appear much larger than natural, and in walking presses much inwards, as if the child had not any support for the foot, it generally proceeds from relaxation of the ligaments produced by delicacy of constitution. Under these circumstances, medical advice should be taken, because, if neglected and allowed to proceed for a length of time, a confirmed awkward gait will be the consequence.

If resulting from corns, they should

be carefully and properly removed, and every means adopted to make the child, when walking, bear on the outside of the foot, the nurse being first assured no cause of pain remains. If it be produced by weakness of the ankles, well-adapted laced boots should be worn, with an extra thickness of sole on the inner side, so that the ankles may be supported, and at the same time kept in a natural position.

These complaints must not be confounded with the diseases of weak and sickly children, for weakness of the ankles is often produced by constitutional debility, and may also be caused by an affection of either the loins or knees, which requires proper surgical treatment.

Young persons should be strictly cautioned not to tear off the toe nails, which they are very apt to do to save trouble, from the facility with which it

is effected. Much mischief, however, may be caused by such a practice, especially with the great toe nails, which, being formed of longitudinal fibres, the laceration is more likely to be continued laterally towards the glands or root, than completely across.

Children, when sent to school, should be instructed to have their nails cut in a proper manner, and impressed with the evil consequences of tearing them. They should be taught that cleanliness is essential to health, and directed either to sponge their feet, or wipe them with the end of a wet towel, every morning, rubbing them afterwards thoroughly dry, particularly between the toes.

They should not have more than two pairs of shoes in wear, as otherwise they would become too small, and then be the source of much mischief, and prevent that exercise so essential to

their health and pursuits. If the shoes are too short, the toes are pressed back towards the instep, or otherwise deformed, and are subject to corns; and if too narrow, the toes are pressed together, become painful and inflamed producing soft corns, and also give rise to that malformation of the foot which is called bunion.

When shoes need repairs, because they are burst at the sides, or requiring soleing the school shoemaker not unfrequently takes in the upper leather, or lays a new piece badly sewn on the broken part, so that the seams are likely to bruise the toes. When such is the case, and the boy experiences pain or difficulty in walking, or the feet are chafed and bruised, they should no longer be worn.

The employment of foot baths, either hot or cold, must depend greatly on the difference of constitution and habit.

For persons advanced in age, the tepid bath is preferable, particularly if they are subject to gout or rheumatism. Any sudden change of temperature in such cases might do harm, and the feet ought not to be put into water of any kind, while the patient is actually suffering from either of those disorders, except by the direction of the medical attendant.

In advanced age, persons do not generally bathe the feet so frequently as in early life ; they would, however, derive great comfort from sponging them once or twice a week, or oftener, with soap and warm water, wiping them thoroughly dry immediately afterwards, then using the flesh brush, and rubbing off the loose cuticle or scales with a coarse towel. When there is any accumulation between the toes, a fine cloth, wetted with Eau de Cologne or any other spirit, may be drawn back-

wardsand forwards between them two or three times a week.

These rules will be of great use to persons in feeble health.

Care should be taken that the side seams on the foot of the stocking do not press against the little toe, such being (from the pressure of the shoe), one of the common causes of corns, and also productive of severe pain from those already formed.

When a warm foot bath is required previously to cutting the nails, &c., it should be used in the morning, and made with bran and water; but if the skin is naturally soft and moist, salt may be substituted for the bran. The temperature of the water should be from 90° to 96° Fahrenheit, and the feet should not be kept in the bath more than fifteen minutes. As soon as they have been dried, the callosities (particularly those about the heel) and

excrescences of all kinds should be scraped or rubbed off with a coarse towel, pumice-stone, a fine rasp, or corn rubber.

When a bath is used medicinally, or in consequence of fatigue, the evening is the most proper time.

If the skin about the heel is very thick and chapped, it must be rubbed until it becomes smooth, after which a little cold cream may be applied. If the fissures extend through the skin (as is sometimes the case), a piece of soap-plaster should be drawn tightly round the heel, to keep them in apposition.

Ladies, for general use, should wear silk or fine thread stockings ; and spun silk in the winter ; even when the feet are naturally cold, the usual understocking will be sufficient for additional warmth. If they are liable to swollen feet, particularly about the ankles,

laced boots will be found to give more support than any other, for if properly made, the lining can be regulated according to the amount of swelling. Walking boots should be made of kid, and for wet weather, of fine French calf, with double soles; if the feet be affected with bunions, the elastic spring let into the centre of the vamp will be found very beneficial, but whatever description of boots are worn, a broad sole is indispensible.

Sportsmen, during the shooting season, ought to wear woollen stockings, and change them daily; the shoes should be made right and left, and fit firmly over the instep and round the ankle, so as to prevent the foot from slipping about in them; the soles ought to be considerably thicker than they are usually made, with a full tread, and the waist narrow; the out-

side not too much twisted, but made straight until above the little toe, and then shaped to the foot; the upper leather should be very pliable and soft, lined throughout (instead of the usual narrow pieces pressing on the toes), and properly fitted, so as not to have any ridges or uneven surface. If the shoes can be depended on as waterproof, they would be preferable.

The foot of the stocking, as far up as the ankle, should be well rubbed over with common yellow soap, to prevent the feet from being chafed or galled. Stockings thus prepared ought to be worn constantly during the shooting season. Half a dozen pairs may be prepared at once, so as to have them always in readiness. When the stockings are changed in the evening, of course the clean ones should be worn without soap. The action of the soap

upon the skin in keeping it moist and supple, can be readily accounted for by the quantity of alkali it contains.

After the day's fatigue, the feet should be kept for ten or fifteen minutes in warm water, in which two large handfuls of salt have been previously dissolved; then wiped thoroughly dry, and well rubbed with Eau de Cologne or other spirit.

Pedestrians who take immoderate exercise, or undertake a walking tour on the Continent, should wear woollen stockings and shoes with broad thick soles, and take particular care of their feet, washing them every morning with soap and water. If they are accustomed to use cold water, and the feet are tender, they may be sponged, or bathed for a few minutes in salt and water, and then thoroughly dried. In the evening, the feet should be bathed in warm water for ten or fifteen minutes,

wiped with a coarse cloth, and placed in an horizontal position by lying on a couch or resting them on a chair; after having been exposed to the air for some time, they should be well wetted with spirits, and clean stockings put on.

If annoyed with corns, after the bathing they may be picked or scraped with a small, blunt-pointed knife, or instrument made on purpose, or rubbed with a corn rubber, a fine rasp, or any other safe means, but a razor or other sharp instrument should not be used on any account, as an accident may soon occur, and by drawing blood, however slightly, the next day's journey may be prevented, or, if persisted in, inflammation may come on, and put an entire stop to the traveller's anticipated pleasure.

I knew a gentleman who left London for a pedestrian tour through Switzerland, previously to which his feet were

put in order. When he arrived at Geneva, finding his corns not so comfortable as he could wish, he was recommended by the waiter at the hotel where he was staying, to a German corn-cutter, and, contrary to my instructions not to apply to any person abroad who was unknown to him, he placed himself under his hands.

Unfortunately he did not know the language, and while he was endeavouring to explain that he only wanted his corns carefully pared, the waiter held his foot, the operator ran an instrument round the corn, and then tore it out. The operation gave him great pain, and his toe bled freely. The next day, the foot became so inflamed that he was obliged to send for a surgeon, to remain six weeks at the hotel, and ultimately to return to England without accomplishing his journey.

I mention this case to caution others

against employing persons who are not professionally recommended to them, and that they should, if possible, become their own operators, in preference to having recourse to unknown empirics.

If blisters arise on the toes, and in situations where the skin is likely to be broken, they should be punctured with a needle, at the part where there is most fluid collected, and the contents pressed out with a cambric handkerchief or a piece of lint. This should be done in the evening, after bathing the feet, so that they may be rested afterwards. If the blister is situated on the point of the little toe, or on any other part that is not very painful, it is better not to interfere, but to allow the serum or fluid to be absorbed, and when the skin is dried up to remove it.

If the feet are inclined to be chafed,

the same plan should be adopted as was directed for sportsmen.

Whenever blood is found on the foot of the stockings, the toes and nails should be carefully examined, and if by pressing on the nails blood oozes out or collects around the root, attended with redness and swelling of the toes, it may be inferred that the shoes are too short, and the toes are driven against their points.

The cause of the mischief should be at once removed, when a piece of lint wetted with zinc lotion, and applied around the nail and toe, will be sufficient to restore the parts to a healthy state. If the nail feel loose, it must be cut as closely as possible to the top of the toe, all pressure should be avoided, and the lint continued until the oozing had ceased.

The perspiration of the feet seldom

requires medical interference, unless it is either to such an excess as to be annoying, or the odour becomes so very disagreeable as to be offensive. This latter is a source of exceeding discomfort to many persons who are otherwise in good health. The odour is most perceptible in warm weather or in hot rooms, and in many cases is so fœtid, that the society of the afflicted person is avoided.

No effectual cure can be expected, but cleanliness is absolutely necessary; changing the stockings frequently, washing the feet with rose water, and rubbing them with scented oils twice a-day, is all that can be done. If the perspiration is profuse, an astringent lotion may be used after bathing, and before employing the scents. A solution of the chloride of lime or sodium may be also used with advantage.

When the skin breaks into fissures between the toes, the cracks extending around and under them, it is caused by an acrid condition of the perspiration, or the want of sufficient ablution. In either case it is easily cured by washing the parts with warm soap and water, and applying a piece of lint or rag wetted with camphorated spirit or tincture of myrrh; or, if there be much moisture, by dusting between the toes every morning with a muslin bag containing hair powder, chalk, or Fuller's earth dried and rubbed into a fine powder, the parts being first well washed and dried.

When the toes adhere together from the pressure of the shoes, a piece of new silver or tissue paper, folded and cut to the shape of the top of the toes, placed as far down between them as it will go, absorbs the perspiration, and

frequently prevents the formation of soft corns. It should be changed every day, and kept perfectly smooth.

The want of perspiration, with a dry and burning skin, arises more from constitutional disturbance than from local disorder. Dyspeptic and rheumatic persons are particularly liable to it, and suffer more or less as the stomach is deranged. To relieve the harsh, hot skin, the feet should be bathed in warm water mixed with oatmeal or bran, and should be frequently rested, especially after walking; but the greatest benefit will be derived from the restoration of health under judicious medical advice. A foot bath containing the bicarbonate of potash in solution is frequently very beneficial.

Cold, clammy feet are indicative of debility, and little relief can be ob-

tained from external applications, Camphorated spirit, or any stimulating preparation, well rubbed over the feet, will, however, be found extremely serviceable.

THE END.

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